

## AMENDMENTS TO THE CLAIMS

Please **AMEND** claims 1-6 as shown below.

Please **CANCEL** claims 8-11.

Please **ADD** claims 12-15 as shown below

The following is a complete list of all claims in this application.

1. (Currently Amended) A piezoelectric ink jet printer head formed by ~~laminating a plurality of plates, the piezoelectric ink jet printer head including~~ comprising:

a) an actuator portion ~~being composed of~~ comprising an upper electrode, and a lower electrodes, ~~a piezoelectric plate inserted between the upper electrode and the~~ lower electrodes, a protection layer ~~placed on~~ over the upper electrode, and a resilient plate ~~disposed beneath~~ below the lower electrode;

b) ~~an ink passage portion composed of a spacer below disposed beneath the~~ resilient plate, wherein a first portion of the spacer and forming a side portion forms sidewalls of a chamber and a second portion of the spacer an upper surface of an ink passage;

a channel plate below ~~disposed beneath~~ the spacer, wherein a first portion of the channel plate forms a sidewall of forming an the ink passage under the second portion of the spacer and a second portion of the channel plate forms a sidewall of the chamber; ~~in one side of the chamber and simultaneously expanding the chamber, and~~

a nozzle plate below disposed beneath the channel plate, wherein a first portion of the nozzle plate forms a bottom surface forming the lower side of the chamber and a second portion of the nozzle plate forms a bottom surface of the ink passage; having

a nozzle at a bottom portion of communicating with the chamber; and

e) an ink-supplying portion formed by a through-hole formed through the actuator and the spacer reaching the ink passage, wherein the through-hole is configured to supply ink to the chamber via the ink passage of the channel plate through the actuator portion and the spacer, wherein the through-hole is through the actuator portion.

2. (Currently Amended) The A piezoelectric ink jet printer head according to claim 1, wherein the bottom portion of the chamber is a tapered around portion is ~~formed at the upper part the nozzle such that the cross section of the chamber varies from the chamber to the starting point of the nozzle.~~

3. (Currently Amended) The A piezoelectric ink jet printer head according to claim 1, comprising wherein the ink jet printer head is provided with an ink container above the actuator, wherein the ink container is configured to supply ink to the chamber through the through-hole and the ink passage protection layer, wherein a plurality of ink jet head modules are arrayed on a same plane in a matrix fashion, each module being composed of the actuator portion, the ink passage portion and the ink-supplying portion, and wherein ink is supplied to the chamber of each ink jet head module from the ink container through each through-hole and ink passage.

4. (Currently Amended) The A piezoelectric ink jet printer head according to claim 1, wherein the resilient plate comprises ~~is formed of~~  $\text{ZrO}_2$ .

5. (Currently Amended) The A piezoelectric ink jet printer head according to claim 1, wherein the resilient plate comprises ~~is formed of~~  $\text{BaTiO}_3$ .

6. (Currently Amended) The A piezoelectric ink jet printer head according to claim 1, wherein the resilient plate comprises ~~is formed of~~  $\text{Al}_2\text{O}_3$ .

7. (Cancelled)

8. (Cancelled)

9. (Cancelled)

10. (Cancelled)

11. (Cancelled)

12. (Newly Added) The piezoelectric ink jet printer head according to claim 2, wherein the bottom portion of the chamber tapered around the nozzle to allow ink to flow down to the nozzle.

13. (Newly Added) The piezoelectric ink jet printer head according to claim 3, wherein:

the piezoelectric printer head is comprised in a plurality of ink jet heads; and  
said plurality of ink jet heads are arranged in a matrix array in substantially the same plane; and  
each of said plurality of ink jet heads is configured to receive ink from the ink container.

14. (Newly Added) The piezoelectric ink jet printer head according to claim 1, wherein an upper portion of the through-hole is tapered in the actuator.

15. (Newly Added) The piezoelectric ink jet printer head accordingly to claim 1, wherein:

width of the upper electrode is less than width of the lower electrode; and  
the through-hole intersects the lower electrode; and  
the through hole does not intersect the upper electrode.